

IN THE CLAIMS:

Amendments to the Claims

Please cancel claims 5, 6 and 21-23 which stand withdrawn from consideration as being directed to a non-elected invention without prejudice or disclaimer of the subject matter thereof and without prejudice to the right to file a divisional application directed thereto.

Please amend claims 1, 2, 9, 10, 19, 24 and 26 as shown below:

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method of detecting an endpoint of polishing processing, comprising the steps of:

simultaneously irradiating lights having different wavelengths from one another onto a-an optically transparent thin film formed on a surface of a wafer on which patterns are formed under polishing processing ~~lights having different wavelengths from one another;~~

separately detecting reflected lights of interference lights of said respective lights having the different wavelengths from said film caused by the irradiation interference between lights reflected from a surface of said thin film and surfaces of said patterns formed on said wafer with the lights of the different wavelengths which are irradiated; and

detecting the endpoint of polishing processing of said film on the basis of a relationship between intensities of the separately detected ~~reflected interference~~ lights of the different wavelengths.

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2. (currently amended) A method of detecting an endpoint of polishing processing according to claim 1, wherein said endpoint of polishing processing is detected on the basis of an intensity ratio of said detected ~~reflected~~ interference lights of different wavelengths.

Claims 3 and 4 (previously canceled)

Claims 5 and 6 (canceled)

Claims 7 and 8 (previously canceled)

9. (currently amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming ~~a~~-an optically insulating film on a surface of a wafer on which patterns are formed;

attaching the wafer having the insulating film formed on its surface to a polishing processing machine;

starting polishing processing of the wafer attached to the polishing processing machine;

simultaneously irradiating lights having different wavelengths from one another onto the surface of said wafer under polishing processing ~~lights having different wavelengths from one another~~;

detecting ~~respective reflected lights of~~ reference lights of said respective lights having the different wavelengths from the insulating film on said wafer surface generated by the irradiation interference between lights reflected from a surface of said thin film and surfaces of said patterns formed on said wafer with the lights of the different wavelengths which are irradiated;

detecting an endpoint of polishing processing on the film by comparing at least an intensity of the separately detected ~~reflected~~ interference lights of the different wavelengths;

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stopping polishing processing of said wafer on which the endpoint is detected;
detaching the wafer whose polishing processing is stopped from said
polishing processing machine; and

forming a new wiring pattern on said insulating film of the wafer detached from
said polishing processing machine.

10. (currently amended) A method of manufacturing a semiconductor device according to claim 9, wherein a polishing rate of the film is evaluated on the basis of the intensities of said detected ~~reflected~~interference lights of the different wavelengths so as to change dressing conditions of a dresser to a pad used for polishing processing on the basis of the evaluation result.

11. (original) A method of manufacturing a semiconductor device according to claim 10, wherein said dressing conditions include at least one of a dressing pressure, the number of revolutions, and a rocking motion period of said dresser and a type of working tool used for dressing.

Claims 12-17 (canceled)

18. (previously presented) A method of detecting an endpoint of polishing processing according to claim 1, wherein a white light provides the lights of the different wavelengths.

19. (currently amended) A method of detecting an endpoint of polishing processing according to claim 1, wherein in the step of detecting the endpoint, the endpoint is detected on the basis of a spectral intensity of the detected ~~reflected~~interference lights of the different wavelengths.

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20. (previously presented) A method of detecting an endpoint of polishing processing according to claim 1, wherein a UV light provides the lights of the different wavelengths.

Claims 21-23 (canceled)

24. (currently amended) A method of manufacturing a semiconductor device according to claim 9, wherein the detecting an endpoint of polishing processing on the film by comparing at least an intensity of the detected ~~reflected~~ interference lights of the different wavelengths includes detecting on the basis of a relationship between intensities of the detected ~~reflected~~ interference lights of the different wavelengths.

Claim 25 (previously canceled)

26. (currently amended) A method of manufacturing a semiconductor device according to claim 9, wherein the detecting an endpoint of polishing processing is detected on the basis of an intensity ratio of the detected ~~reflected~~ interference lights of different wavelengths.

27. (previously presented) A method of manufacturing a semiconductor device according to claim 9, wherein a white light provides the lights of the different wavelengths.

28. (previously presented) A method of manufacturing a semiconductor device according to claim 9, wherein a UV light provides the lights of the different wavelengths.

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